

**REMARKS**

Claims 135-170 are currently pending. Applicants wish to thank the Examiner for the courtesy extended to applicants' representative during a November 14, 2003 telephone conference.

**Rejection Under 35 U.S.C. § 103(a)**

In the May 20, 2003 Final Office Action, the Examiner rejected claims 135-170 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Shimono's U.S. Patent No. 5,290,544, (hereinafter "Shimono").

In response, applicants respectfully traverse the Examiner's rejection under § 35 U.S.C. 103(a). Applicants maintain that the presently pending claims are not obvious over Shimono. Applicants point out that claims 135 and 153 are the only presently pending independent claims. Claim 135 recites:

A cosmetic composition comprising bioactive glass and a substantially anhydrous cosmetic formulation with the proviso that said bioactive glass does not comprise ions of silver, copper or zinc. (emphasis supplied)

Claim 153 recites:

A method of making a cosmetic composition comprising combining bioactive glass with a substantially anhydrous cosmetic formulation with the proviso that said bioactive glass does not comprise ions of silver, copper or zinc. (emphasis supplied)

In the May 20, 2003 Final Office Action, the Examiner stated that Shimono discloses cosmetic products that contain soluble glass with metal ions which provide antibacterial and antimold effects (emphasis supplied). This is an important point. Shimono clearly states that any antimicrobial effect from his formulations is the result of metal ions such as silver, copper and zinc. It is therefore quite clear that Shimono teaches away from formulations that do not comprise metal ions, yet still provide antimicrobial effects. In the Final Office Action, the Examiner also stated that Shimono's cosmetic products contain antibacterial agents. The

Examiner is entirely correct, but it is clear that the antibacterial agents in the Shimono formulations are in fact the metal ions (such as silver, copper and zinc).

Stated simply, Shimono teaches that formulations with the metal ions silver, copper and zinc will work (i.e., provide antimicrobial effects) and those that do not contain these metal ions will not work. Since applicants' presently pending claims contain a specific proviso that the claimed formulations do not contain ions of silver, copper or zinc, Shimono cannot render those claims obvious.

For the sake of completeness, provided below is a list of statements in Shimono confirming the marked differences between Shimono and the presently pending claims. These statements confirm Shimono's teaching of the criticality of silver, copper and zinc ions.

(1) In the Abstract Shimono states "A cosmetic product is provided which comprises particles of soluble glass ...which contains silver ions... The silver ions provide an anti-bacterial and anti-mold effect for a prolonged period..." (Emphasis supplied.)

(2) In the "Background of the Invention" Shimono states that [t]he present invention relates...more particularly to cosmetic products...which contain at least one of Ag<sup>+</sup>, Cu<sup>+</sup>, Cu<sup>++</sup>, and Zn<sup>++</sup>." (Emphasis supplied.)

(3) In the "Summary of the Invention" Shimono states that "there is provided cosmetic products containing a soluble glass which contains at least one metal ion of Ag<sup>+</sup>, Cu<sup>+</sup>, Cu<sup>++</sup> and Zn<sup>++</sup> having an antibacterial property." (Emphasis supplied.)

(4) In the "Detailed Description" Shimono states that "the cosmetic products of the present invention contain (sic) soluble glass containing at least one metal ion of Ag<sup>+</sup>, Cu<sup>+</sup>, Cu<sup>++</sup> and Zn<sup>++</sup> as an antibacterial agent. Accordingly, such a metal ion is gradually eluted from the soluble glass into the cosmetic products to exhibit an antibacterial effect..." (See, Col. 3, lines 3-8, emphasis supplied.)

Accordingly, it is clear that Shimono teaches away from applicants' claimed invention since Shimono would teach to the reader that compositions which do not contain these ions are not suitable for preserving cosmetic products. However, contrary to Shimono, applicants have surprisingly found that cosmetic compositions comprising bioactive glass without these metal ions have excellent preservation qualities. Numerous cosmetic formulations comprising

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bioactive glass are disclosed in the specification and the antimicrobial activity of bioactive glass formulations which do not contain metal ions is described, *inter alia*, in Examples 16-19. Since applicants' presently claimed invention specifically excludes the silver, copper and zinc ions disclosed by and deemed critical to the invention of Shimono, that reference cannot render obvious applicants' claimed invention.

In addition, applicants have surprisingly found that these claimed cosmetic formulations which do not contain ions of silver, copper or zinc, not only provide antimicrobial effects, but also do not irritate the skin, even though such formulations may increase the pH of the surrounding area. Accordingly, applicants' claimed formulations provide an additional unexpected result.

Thus, since Shimono does not disclose, teach or suggest, and in fact teaches away from cosmetic compositions or methods of making cosmetic compositions comprising bioactive glass which do not contain ions of silver, copper or zinc, Shimono cannot render obvious claims 135 or 153. Since all other pending claims depend either directly or indirectly from claim 135 or claim 153, those claims are likewise not rendered obvious by Shimono.

Accordingly, applicants respectfully request that the Examiner reconsider and withdraw the rejection of the claims under § 35 U.S.C. 103(a).

In view of the foregoing, applicants respectfully request that the Examiner reconsider and withdraw the rejections set forth in the May 20, 2003 Final Office Action and allow the presently pending claims, namely claims 135-170.

No fee, other than the fee for a three-month extension of time, is believed to be necessary in connection with the filing of this Communication. However, if any additional fee is necessary, applicants hereby authorize such fee to be charged to Deposit Account No. 50-0540.

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If a telephone interview would be of assistance in advancing the prosecution of this application, applicants' undersigned attorney encourages the Examiner to telephone him at the number provided below.

Respectfully submitted,

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